

# A NOTE ON THE OCCURRENCE OF *Myrmecia brevinoda* (HYMENOPTERA : FORMICIDAE) IN NEW ZEALAND

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*Abstract.* Five records of an Australian bulldog ant, *Myrmecia brevinoda* Forel, in New Zealand are discussed with a comment on the species possible establishment.

*Myrmecia brevinoda* Forel, an Australian bulldog ant, was first found in New Zealand at Milford, on Auckland's North Shore, in September 1940. There is one specimen from this occurrence, collected by W.H. Smith, in the Auckland Museum, but there are no specific locality details.

The species was taken again at an address in Oxford Tce, Devonport, also on Auckland's North Shore, in December 1948, by A.W. Joughin. A few specimens were collected from a property half way along the west side of the street; no nest was found and no further action was taken (A.W. Joughin pers. comm.). One large specimen from this collection is in the Auckland Museum. One other specimen, in the New Zealand Arthropod Collection, DSIR, Auckland, is labelled North Shore, 9 October 1949, Mr Joc-kin. This is undoubtedly a mis-spelling of Joughin (possibly arising from the spoken name) and the specimen may have been received by DSIR in 1949 without written data.

It appears that Brown, in his 1958 review of New Zealand ants (Brown 1958), based his comments on the above two records. He wrote, "Apparently the species has managed to maintain itself in the district for some time, but its present status is not known".

In April 1965, the Agriculture Quarantine Service was notified when a nest was found in a domestic lawn at 19 Oxford Tce, Devonport. A wooden crate, recently brought from Australia and which was sitting on the lawn, was thought to be the means of introduction at the time and the nest was destroyed. A limited survey of the area was carried out by Ministry staff, but no further bulldog ants were found. Specimens have been deposited with Entomology Division, DSIR, the Plant Health Diagnostic Station, Levin and Auckland Museum. In October 1979, the author visited the area and this address in particular. The people resident there in 1965 had moved and the new owners had never heard of or seen any bulldog ants.

There is a single specimen of *Myrmecia brevinoda* in the collection of the Plant Health Diagnostic Station, MAF, Auckland, said to have been collected somewhere in Auckland on 23 August 1971 by M.A. Knight. There is no other data concerning the specimen.

In March this year (1981) the species was discovered again in Devonport and its presence reported. A nest was found in the ground between the footpath and gatepost of 15 Oxford Tce, Devonport. The owners of this property have lived there for the last 10 years, but had only noticed foraging bulldog ants for the previous year or so. They were usually seen in the evening. Agriculture Quarantine staff visited the address on several occasions and the nest was destroyed. A large number of specimens were collected, including workers, males, larvae and pupae. No queen was found although the nest was completely excavated. Specimens have been sent to a number of institutions in New Zealand and Australia, including the Auckland Museum.

The occurrence of the species on three separate occasions, in 1948, 1965 and 1981, on the same side of the same street would seem to indicate the species establishment in the area rather than three separate introductions from Australia. It is interesting however that the species has not been reported more often than it has, since the ants are large (15-20 mm) and aggressive, and easily distinguished from other ants in the region. Brown (1958) says of the species, "It is a ground nesting form, and forages principally at night, at least during warm weather; it should be sought on the trunks of trees with a light". The species nocturnal behaviour and apparently limited distribution could be factors contributing to the infrequency of sightings.

While bulldog ants are not of economic importance in Australia they are well known for their potent sting, an aspect of their behaviour which also makes their presence in New Zealand undesirable.

*Acknowledgements.* I am grateful to Dr R.W. Taylor, CSIRO, Canberra, for confirmation of the identity of the 1981 specimens; Mr K.A.J. Wise, Auckland Institute and Museum, and Dr T.K. Crosby, Entomology Division, DSIR, for access to specimens in their respective collections; Mr R.G. Sunde, Plant Health Diagnostic Station, MAF, Auckland, for details of the 1971 record; Mr R.F. Winch, Agriculture Quarantine Service, MAF, Auckland, for details of the 1965 occurrence; Mr A.W. Joughin, Devonport, for information given in July 1981; and Mr and Mrs A.W. Emerson, 15 Oxford Tce, Devonport, for bringing the most recent occurrence to our attention and for their cooperation with Ministry staff in dealing with the situation.

#### REFERENCES

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